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ABSTRACT OF THE DISCLOSURE

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In a transmission line assembly, a dielectric plate has a continuous protruding portion on at least one of the surfaces thereof so as to form a convex section, electrodes are formed on both of the surfaces of the dielectric plate including the outer surface of the protruding portion, and a plurality of through holes, each electrically interconnecting the electrodes formed on both of the surfaces of the dielectric plate, is arrayed on each side along the protruding portion. Accordingly, the space surrounded by the electrodes and the arrayed through holes operates as a transmission line in a mode equivalent to TE10 mode.